CUMMINS ENGINE COMPANY

EXECUTIVE ORDER U-R-002-0076-1 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)		
2001	1CEXL0505ABA	8.3	Diesel	8000		
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION			
Direct Die	sel Injection, Turbocharg	er, Charge Air Cooler	Crane, Loader, Tractor, Dozer, Pump, Compressor			

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
POWER CLASS			нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
130 ≤ KW < 225	Tier 1	STD	1.3	9.2	N/A	11.4	0.54	20	15	50
		FEL		7.8						·
		CERT	0.6	7.8		0.9	0.26	10	3	25

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the 'manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

day of October 2001.

R. B. Summerfield, Chief

Mobile Source Operations Division

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Engine Model Si mary Form

U-12-002-0076-1

Manufacturer:

Cummins Engine Company

Engine category:

Nonroad Over 50 Hp

EPA Engine Family: 1CEXL0505ABA

Mfr Family Name: A413

Process Code:

New Submission

FEL change

1.Engine Code	2.Engine Model	3.8HP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
1845;FR90180	C8.3-C	260@2200	133	98,8	825@1500		79,6	DIT, TO,CAC+
1845;FR9861	C8,3-C	260@2200	133	98.8	825@1500	157	79.6	TC F
1845;FR90179	C8.3-C	260@2200	133	98.8	816@1500	154	* 78.1	TC
1845;FR9880	C8.3-C	260@2200	133	98.8	816@1500	154	78,1	, TC
1845;FR90352	C8,3-C	260@2200	133	98.8	816@1500	154	78.1	TO
1845;FR90393	C8.3-C	260@1800	143	86.7	822@1500	156	78.9	TC TO
2064;FR9879	C8.3-C	250@2200	132	97.6	794@1500	149	75,3	V TC U
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